



CENTRAL CALIFORNIA AIR QUALITY RESEARCH

Policy Relevant Findings The State's Perspective

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Outline

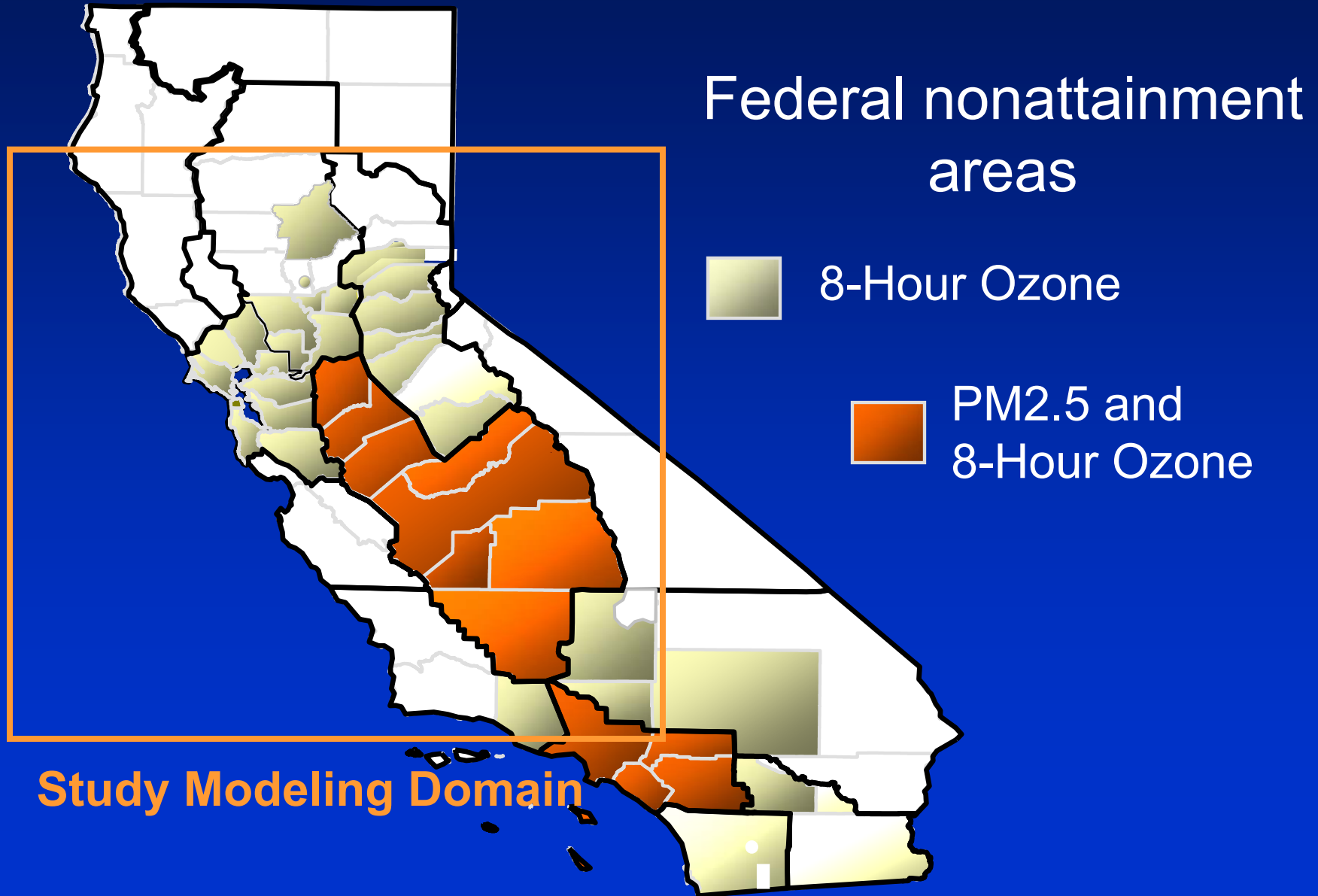
- Health Effects
- Extent of the Problem
- State Role
- ARB Emission Reduction Strategies
- Upcoming ARB Rulemaking
- Study Accomplishments
- Key Study Questions
- Next Steps

Health Effects of Air Pollution

- Premature mortality
- Asthma and respiratory effects
- Cancer risk and other health effects
- Annual health costs in billions of dollars



The Problem is Extensive



State Role

- Commitment to advancing science
- SIP development and approval
 - Understanding the problem
 - Emission controls
 - Require mitigation of pollutant transport

Co-Sponsor CCOS and CRPAQS

- Extensive field monitoring at the surface and aloft



- hundreds of monitoring sites
- millions of data records
- numerous teams of experts



- Improved emission inventory
- State-of-the-science air quality modeling
- World class data base

Understanding the Regional Nature of the Problem

The air quality studies

- Demonstrate that pollutant transport occurs within and between air basins
- Lead to characterization of air quality and meteorology throughout the region
- Allow evaluation of both upwind and downwind emissions

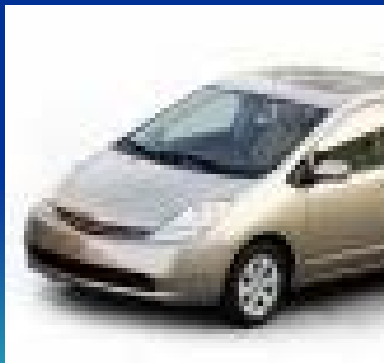


ARB Programs Address Multiple Pollutants

- Directly emitted PM_{2.5}
- Ozone and PM_{2.5} precursors
 - nitrogen oxides (NO_x) and organic gases (ROG)
- Additional PM_{2.5} precursors
 - sulfur oxides (SO_x)
- Toxic air contaminants
- Greenhouse gases

ARB Emission Reduction Strategies

- Mobile sources
- Consumer products
- Fuels
- Off-road equipment



Goods Movement Emission Reduction Plan

- Adopted on April 20, 2006
- Plan addresses:
 - Trucks
 - Locomotives
 - Ships and cargo handling
 - Harbor craft



Upcoming ARB Rulemaking

- Industrial equipment
- Stationary diesel agricultural engines
- Construction equipment
- Harbor craft
- Aboveground gasoline storage tanks
- Private truck fleets



Carl Moyer Incentives Program

- State and local partnership
- Reduce NOx, ROG, PM emissions
- Through 05-06 FY provided
 - \$255M statewide
 - \$38.6M to SJV
 - SJV matched \$13.4M
- Model for national incentive programs



Study Accomplishments

- Provides sound science for air quality planning
- Built multiple partnerships
- Enabled development of effective controls leading to air quality progress
- Provides solid foundation for future SIPs

Key Study Questions

- Where are the locations of greatest public exposure to air pollution?
- How much progress has been accomplished with existing air pollution control programs?
- What additional emission reductions are needed to meet the target for clean air act deadlines?
- What is the relative importance of the different emission sources?

Key Study Questions (continuation)

- What is the relative importance of emission reductions in organic gases (ROG) and nitrogen oxides (NO_x)?
- What is the influence of pollutant transport between and within air basins?
- Can we meet the initial ozone attainment date? If not, what is the earliest feasible date?

Next Steps

- Develop SIPs for attaining national air quality standards
- Continue progress towards attaining State standards
- Incorporate future study results in the planning and regulatory processes